To:

LINDSAY, RONALD[RONALD.LINDSAY@scana.com]

From:

BYNUM, ALVIS J JR Thur 9/5/2013 7:54:33 PM

Sent:

Fw: Fwd: Meeting with SCANA and Santee Cooper Subject:

Al Bynum

From: Pelcher, Steve [mailto:stephen.pelcher@santeecooper.com]

Sent: Thursday, September 05, 2013 07:20 PM

To: BYNUM, ALVIS J JR

Subject: Fwd: Meeting with SCANA and Santee Cooper

Stephen Pelcher

Begin forwarded message:

From: "Carter, Lonnie" < lonnie.carter@santeecooper.com>

Date: September 5, 2013, 6:23:27 PM EDT

To: "MARSH, KEVIN B" < KMARSH@scana.com> Cc: "Brogdon, James" < jim.brogdon@santeecooper.com> Subject: RE: Meeting with SCANA and Santee Cooper

Kevin,

Thanks. I believe your letter is clear and expresses the urgency well. I can make all of the dates you have given them work.

Let me know when we can get together with our teams to consider our options and chart a course to get them back on schedule. My folks have been meeting and considering various options that we would like to discuss with you and your team. One thing they brought to my attention today is that SCANA has outside counsel with construction litigation experience (Smith Currie and Hancock?). I assume they would likely represent SCANA and Santee Cooper in any litigation. If that is the case, I recommend we get them involved. We need their advice before we meet with Roderick and Asherman.

I hope you hear from these guys before close of business tomorrow. If you don't, that will be a really bad sign.

Please call me when you hear something or have a suggested time for us to meet.

Thanks, Lonnie

From: MARSH, KEVIN B [mailto:KMARSH@scana.com]

Sent: Thursday, September 05, 2013 5:29 PM

To: roderidl@westinghouse.com; pasherman@cbi.com

Cc: Carter, Lonnie; BYRNE, STEPHEN A; ARCHIE, JEFFREY B; BYNUM, ALVIS J JR; LINDSAY,

RONALD; ADDISON, JIMMY E

Subject: Meeting with SCANA and Santee Cooper

Dear Danny and Phil,

I requested a meeting with both of you two weeks ago to discuss the status of our nuclear project. We and our partner Santee Cooper continue to have serious concerns about the consortium's ability to deliver modules from the Lake Charles facility. The consortium is now in its third year of unsuccessful attempts to resolve its manufacturing problems at the facility which continue to impact our project negatively. Your missed deadlines put potentially unrecoverable stress on the milestone schedule approved by the SC Public Service Commission. I don't have to remind you that continuing delays and cost overruns are unacceptable from a public perspective and could have serious effects. We need to meet.

Please consider 9/13 at 10am or after, 9/16 at 3pm, 9/18, or 9/20 as potential dates for a meeting. You can fly to our hanger at the Columbia Airport and we will meet in the conference room.

Thank You.

Kevin Marsh SCANA Corportation 803-217-8097

## Confidentiality Notice:

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# INTER-OFFICE COMMUNICATION

santee cooper

EXHIBIT 5

WITNESS GUILL

DATE: 8-14-2018

REPORTER: H. LANDRY

Date:

October 21, 2013

To:

James E. Brogdon, Executive Vice President and General Counsel

Steve Pelcher, Deputy General Counsel, Nuclear and Regulatory Compliance

From:

Lonnie N. Carter, President and Chief Executive Officer

Subject:

Consortium Meeting regarding Summer Units 2 and 3 on September 18, 2013

Kevin Marsh and I met with Consortium CEO's to discuss the schedule of module and submodule completion for Summer Units 2 and 3. Santee Cooper and SCANA requested the meeting three weeks earlier to express concern regarding the late delivery at the point of the meeting of 15 submodules from Lake Charles. Attending the meeting for SCANA was Kevin Marsh, Chairman and CEO. I represented Santee Cooper. Representing Toshiba was Chairman Shigenori Shiga. Representing Westinghouse was Danny Roderick, President and CEO, Mark Morant and another gentleman, who was not identified until later in the meeting. He was there not as part of our meeting but another meeting they were traveling to after ours. Representing CB&I were President and CEO, Phil Asherman, Executive Vice President, Luke Sorenson, Lasa (not familiar with his first name), COO, and Jeff Lyash.

Kevin Marsh started the meeting by expressing our concern that CB&I was failing to deliver submodules to the site as provided in their April 9, 2013 schedule. He reminded them that Santee Cooper and SCANA had agreed to wait until CB&I was able to evaluate the circumstances at Lake Charles before providing the schedule following their acquisition of Shaw. That schedule was provided on April 9<sup>th</sup> and was the basis for the request by SCANA and Santee Cooper to provide a revised overall project schedule. That revised schedule provided for Summer Unit 2 to come on line between December 2017 and March 2018. Summer Unit 3 would follow approximately 12 to 15 months later. SCANA announced the revised schedule at its Analyst Day presentation on June 5, 2013 and Santee Cooper also began using the revised schedule in its discussions with investors and in its official statement for bond offerings. As of the date of our meeting, CB&I and the Consortium has failed to deliver 15 submodules. These submodules are critical for the completion of module CA20. According to the June 2013 schedule, module CA20 must be set by the end of October 2013 in order to remain on the current schedule.

Both Kevin and I explained our grave concern regarding the inability of CB&I and Lake Charles to deliver submodules as scheduled. We pointed out that Santee Cooper and SCANA had been working with Shaw and now CB&I for almost three years in order to make sure that the submodules could be delivered timely. During that time, at a series of meetings Shaw/CB&I gave us plans and assurance that they would take the necessary steps to deliver modules in a timely manner. Their failure to provide modules on a timely manner is now having a critical impact on the project and if not addressed immediately could mean that our organizations would

be forced to take drastic action. Kevin and I went on to note that we have received so many new schedules that they are meaningless. We have no real confidence in their ability to provide modules as scheduled. We have reminded them that we have given CB&I additional time after their acquisition of Shaw to determine an accurate schedule for delivering modules. Now this

information has been provided to analysts and potential investors. The Consortium's commitment to addressing the issues has very low credibility with our organizations. Our expectation is that the Consortium, CB&I, and Westinghouse, will correct these problems in a timely fashion so that they can get the project back on schedule and meet the December 2017 substantial completion date. We made clear that this was our expectation that the June 2013 project schedule would be met and the Consortium would use whatever resource necessary to meet such schedule. We reminded them that we had not agreed to the delay that brought us to this schedule nor would we be willing to provide any additional compensation. Kevin reminded them that the July 11, 2012 change order provided additional compensation for module design and fabrication issues but fixed the cost of such modules to the project, meaning that CB&I had assumed the liability for any and all future costs associated with module fabrication including delays. We further explained that this project receives very close scrutiny from the financial community, regulators, and our customers. There is a very close watch on schedule, budget, and cost overruns. The recently announced delay in June exacerbates these concerns. Any lack of module deliveries in August and September is unacceptable coming just weeks after receiving a revised project schedule. Our expectation is that the Consortium will correct these problems and get the project back on schedule.

I pointed out that Santee Cooper is in the process of preparing to enter the financial market to issue some additional long term debt with longer maturities. Santee Cooper must be prepared to explain the schedule and would have to disclose any items or any matter or issue which was potentially having a material delay on the project schedule. Kevin indicated that SCANA would likely be in the market in October as well. I requested that the Consortium provide Santee Cooper and SCANA a letter setting forth their view of where they were on the schedule.

Both Kevin and I pointed out that failure to deliver the modules on schedule would be received poorly by the financial community and regulators. The regulators likely would not approve further delays or costs increases and the financial community would not likely lend additional money at competitive interest rates. Therefore, it is imperative that the Consortium stick to the schedule and budget for the project. I believe judging from the reactions of Phil Asherman and Danny Roderick that they were not aware of how closely monitored the schedule and cost are and how those could potentially lead to the cancelation of the project.

Luke Sorenson spoke up and indicated that they believed that the project was on schedule. CB&I recognized some of its issues regarding the manufacturer and fabrication of modules at Lake Charles. He indicated that all of the submodules for CA20 would be received at site ready for assembly by October 25<sup>th</sup>. He further indicated that in the next six weeks, 14 key modules would be delivered to the site and ready for use, 8 modules would be fixed at the site; these are the so called Legacy modules from Lake Charles, 6 modules would come from Lake Charles. The October 25 delivery date should allow for CA20 to have a "hook date" of January 14<sup>th</sup>. Jeff Lyash spoke up and indicated that they still believe that the December 2017 substantial completion date is achievable. The Consortium, in particular, CB&I are on course and taking actions to make this schedule.

The group of Consortium representatives began to explain themselves, they indicated that they recognized when they provided the revised schedule for modules on April 9, 2013 that additional manufacturing capability was necessary to meet the schedule. CB&I has been in the process of identifying additional manufacturing capacity. They indicated they had qualified five potential suppliers and were negotiating with one of these third parties to provide additional manufacturing and fabrication. All of these suppliers are currently nuclear qualified. It was unclear to me as to whether all of the suppliers were domestic although several clearly were. In addition to this additional help, they have engaged Electric Boat. Although, my understanding is Electric Boat is not doing certified nuclear work.

Luke Sorenson indicated that as they begin to work on CA01 submodules, one of those modules takes up almost the entire Lake Charles facility. This was cited as the reason for needing to ship the so called Legacy modules still requiring some additional minor work or paperwork associated with them prior to their being able to be turned over to the site for inclusion. Minor work was indicated as very small welding or grinding or in some cases simply just paperwork. I expressed my doubts regarding the so called legacy modules. I pointed out that if these matters are so simple why it has taken them so long to correct them and get these modules to the site. The indication was given that the Consortium needed to put primary focus on getting modules complete and that they would continue to work on getting the Legacy modules complete and ready for assembly at the site. Their assessment is that this can best be accomplished by moving these modules out of Lake Charles, providing the additional space there for a manufacture of other modules need for CA01. The more simple tasks needed for the Legacy modules would be more efficiently done at the site. Kevin and I both stated that this was being done at their direction and their expense and they were to keep them separate and apart from any of the activity currently ongoing at the site.

Since the Consortium (Roderick, Asherman, and Lyash) indicated they believe the project schedule was still very makeable and they were taking the appropriate actions (e.g. procuring other suppliers, reorganizing work flow, correctly network, freezing design changes) to ensure that this schedule was met, I asked the Consortium to provide SCANA and Santee Cooper with a letter detailing just such. I also asked that they provide a detailed schedule that would allow Santee Cooper and SCANA to see weekly the actual module schedules to be delivered in order to meet the schedule they were currently on and how this would ultimately dovetail in to the existing schedule and allow them to get back on schedule. Phil Asherman and Danny Roderick agreed to provide such letter and provide two schedules. The first schedule is a so called level one schedule that would show how the overall project is expected to be met with Summer Units 2 and continue to bring Unit 3 online within in 12 to 15 months of Unit 2. They also agreed to provide a granular schedule which according to them will show daily schedule deliveries for CA01 and CA20. Kevin and I accepted this commitment and encouraged them to get it to us right away. Danny Roderick indicated that the schedule would be forthcoming but certainly within a week.

Shiga reported that Toshiba has been providing and continues to provide some oversight to Westinghouse and CB&I in the way of expertise, scheduling and sequencing. They are also

providing additional help for the nuclear island and turbine building. He indicated that Toshiba understands their liability to SCANA and Santee Cooper. Also, Toshiba is providing engineering and support to ensure that the project stays on schedule. He also indicated that Toshiba will be bidding as a third party on the additional module manufacturing capability.

I reminded the group that these developments while sounding positive quite frankly were as we pointed out at the beginning of the meeting not considered reliable. They had not met prior schedules. However, I was willing to accept them as information and proceed as they indicated. We expected to receive the letter including both the level one and granular schedule right away as we would be in the financial market right away. I also encouraged them (Kevin supported) to communicate directly with Kevin and I if they were unable to meet any of the schedules that they have provided regardless of the reason. Both Asherman and Roderick agreed that such communication should take place and this might have alleviated some of the concern expressed by us today. I provided them with my business card which contains all of my contact information including my mobile phone and encouraged them to contact us. They indicated they had the same information for Kevin. That way they would know first-hand from them what their organizations were completing.

Kevin asked the Consortium to review the cash flow projections for the project and to revise the projections as warranted. He noted that the current projections did not reflect the December 2017 schedule. This was an issue with South Carolina Public Service Commission. The Consortium agreed to review and revise as necessary. No time frame was given to complete this task.

Kevin went on to express concern regarding the management capabilities in that at Lake Charles. He indicated that their assessment was that the person managing that facility needed to have prior nuclear experience, particularly nuclear certification type experience.

Everyone, except for the CEO's from the five companies were excused and left the room. Asherman, Shiga, Roderick, Marsh and I remained in the room for a private conversation. CB&I indicated plans to replace the management at the Lake Charles facility with someone who has nuclear certification experience. They pointed out that their reason for hiring Jeff Lyash, a former Progress Energy employee, was for the purpose of adding nuclear experience to their management team. They also indicated that Lee Presley will be on site at Jenkinsville and has nuclear experience. CB&I will look for additional talent. This is a result of Bill Fox's recent resignation. During the private meeting of just the CEO's both Kevin and I reiterated very forcefully our concern regarding their ability to meet the schedule and expressed our insistence that they take whatever steps are necessary to develop the modules and to keep the project on schedule and within the approved budget. They all agreed that this was paramount. They understood the seriousness of not meeting the schedule better and that they would take whatever steps were necessary to get back on schedule. They believe that they are taking such actions. They also understand that we will be watching carefully and that if necessary we will take whatever measures available to us to protect our organizations and our stakeholders. The parties agreed that we would meet more frequently, either in person or by phone and that such

meetings would be taking place monthly. Danny Roderick took the assignment to set up the next meeting, which the parties agreed would be sometime between October 25<sup>th</sup> and the end of October. This timing was picked because all of the submodules necessary for CA20 were committed by this time.

As I indicated to the attendees, I remain skeptical as to whether the information provided by the Consortium can be relied upon. We made clear, Kevin and I, that we would monitor their progress weekly and would take whatever actions were necessary to protect our organizations and our customers.

As the meeting was wrapping up, Phil Asherman handed out the attached presentation titled "SCANA Executive Briefing Lake Charles Modules 18 September 2013". There was no discussion of this material.

If you have any questions or need clarification on any of the points above, please let me know.

LNC:alh

Attachment

cc: Richard Lorenzo





May 6, 2014

Philip K. Asherman President & CEO CB&I One CB&I Plaza 2103 Research Forest Drive The Woodlands, TX 77380

Danny L. Roderick President & CEO Westinghouse Electric Corporation 1000 Westinghouse Drive, Suite 100 Cranberry Township, PA 16066 EXHIBIT U
WITNESS SUPERIOR
DATES 14-2018
REPORTER: H. LANDRY

Subject:

V.C. Summer Units 2 and 3 Guaranteed Substantial Completion Dates

Reference:

- (1) Engineering, Procurement, and Construction Agreement for AP 1000 Nuclear Power Plants, Dated May 23, 2008 – V.C. Summer Units 2 and 3
- (2) VSP\_VSG\_002024, dated August 6, 2012

## Gentlemen:

On May 23, 2008, we executed the EPC Agreement with the Consortium for Units 2 and 3 at our V.C Summer nuclear facility. That was an historic day for our companies. We would like to believe that it was equally significant to you. Together, we helped kick off what we continue to hope will be a new wave of nuclear construction in this country.

The V.C. Summer facility offers the best template for future projects. Although you signed EPC agreements with two other utilities at about the same time, both of

those projects are currently embroiled in major litigation. We chose a different path. We resolved to work with you amicably, believing that building the project cooperatively, on time and on budget, would be in the best interests of all involved.

The events since May 23, 2008 have tested our resolve. In this letter, we will review certain of those events for the benefit of your current management. We believe that such a review is called for because of the many turnovers in your management since May 23, 2008. With one possible exception, no one from your two companies who attended the signing ceremony is still involved in the project. Since then, Westinghouse has had at least two Presidents, three Project Directors, and two Commercial Directors. Shaw was acquired by CB&I, and has had comparable turnover, with five Commercial Directors, two Project Directors and two Construction Managers.

Before reviewing the relevant events, we wish to share with you our view that the management turnovers have been accompanied by a change in attitude. Senior managers who began the project appeared to appreciate the significance of the task to our customers and to the nuclear community at large, and exhibited a commensurate dedication. Events indicate that this has been replaced by a different attitude, one that is less focused and seems intent on taking advantage of our cooperative nature.

We should also mention that we have noted the evident deterioration of the relationship between senior management at Westinghouse and Shaw/CB&I. Repair of that relationship will likely be necessary if you are to satisfy our concerns. As a Consortium, the two firms are jointly and severally liable to us. It does not matter to us which of you caused a specific problem. We look to both of you to remedy all the Consortium's deficiencies.

We regret that this letter is necessary and regret its length. Your poor performance has made both necessary. A complete description of our grievances would make this letter even longer. Consequently, we have chosen to focus on the events and issues concerning the structural modules, primarily CA-20 and CA-01, as well as certain design issues, and their combined effect on the expected completion date and cost of the project. We selected these examples to illustrate our dissatisfaction. They are not an exhaustive listing of your every shortcoming.

#### I. THE EPC AGREEMENT ESTABLISHED THE PROJECT SHEDULE

The EPC Agreement stated the Consortium's commitment to meet following dates for Unit 2:

Activity	Unit 2
CA-20 On-Hook	November 18, 2011
CA-01 On-Hook	March 29, 2012
Guaranteed Substantial Completion	April 1, 2016

To meet these dates, it was essential that the Consortium timely complete module fabrication, delivery, and assembly. The Consortium selected Shaw Modular Solutions, LLC ("SMS"), an affiliate of the Consortium, as the module fabricator. Problems with SMS's work began almost immediately. The NRC attempted to inspect the SMS facility between January 10 and 12, 2011, but the inspection had to be "terminated early because of the current status of activities at SMS." To the NRC's apparent surprise, SMS had not yet made enough progress to make an inspection worthwhile.

By letter dated February 22, 2011, SMS advised the NRC of its expectations for module production and shipment, as follows:

SMS expects to be at a high level of production of structural modules in early June 2011. SMS expects that shipment of the first structural submodule will occur the end of June 2011. ... If schedule changes are necessary, SMS will promptly notify the NRC.

SMS did not meet these module production and shipment dates. We are unaware if it gaye the NRC the promised notice of these failures.

The NRC returned to inspect the SMS site between November 14 and 18, 2011. That inspection led to a "Notice of Nonconformance," dated January 6, 2012, based on deficiencies in SMS's quality assurance program. The Notice of Nonconformance stated:

During this inspection, the NRC inspection team found that the implementation of your quality assurance program failed to meet certain NRC requirements which were contractually imposed on you by your customers or NRC licensees. Specifically, the NRC inspection team determined that SMS was not fully implementing its quality assurance program in the areas of training, design control, procurement document control, control of special processes, control of measuring and test equipment, control of nonconforming items, and corrective actions consistent with regulatory and contractual requirements, and applicable implementing procedures.

# II. THE AUGUST 6, 2012 AGREEMENT CHANGED THE GUARANTEED SUBSTANTIAL COMPLETION DATES

By July 7, 2012, only 21 of 72 CA-20 sub-modules had been delivered to the site. Despite the poor progress, you assured us that you had resolved the module production problems. This led to the Agreement of August 6, 2012.

The 2012 Agreement recites that it resolved several pending change order requests. An additional motivation for us was to enable you to put the past module issues behind you and have a fresh start. Section IV.A of that agreement established the following revised guaranteed substantial completion dates:

Activity	Unit 2	Unit 3
Guaranteed Substantial Completion	March 15, 2017	May 15, 2018

After execution of the 2012 Agreement, you had no one to blame but yourselves for future module delays. Section IV.D of the 2012 Agreement made clear that future module delays would be your sole responsibility. It stated in pertinent part:

Except as otherwise provided for in Article 9 of the EPC Agreement or Section XII.D of this Agreement, Contractor will not submit further Change Orders for any impacts to Project Schedule or Contract Price associated with Structural Module schedule delays and agrees that such further schedule delays will be the responsibility of Contractor.

Although the parties released certain claims against each other in the 2012 Agreement, Section XII.D of the agreement stated that our release did not apply to any claims "that may arise hereunder from Contractor's failure to deliver the Structural Modules referenced in Section III.C of this Agreement, so as to achieve" the revised Guaranteed Substantial Completion Dates.

The 2012 Agreement imposed on the Consortium certain additional scheduling obligations to enable us to monitor module progress. Section IV.D of that agreement stated:

In order to measure impacts to the Project Schedule associated with Structural Module delivery, Contractor agrees to provide a detailed Structural Module delivery and assembly baseline schedule within 30 calendar days of the execution of this Agreement and to report actual progress against this schedule on at least a monthly basis.

The Consortium prepared the new baseline schedule for module delivery and assembly, as called for in this Agreement, but it has not provided the monthly progress reports.

In sum, the Consortium decided to engage SMS, an affiliated entity, as the module fabrication subcontractor. SMS proved to be neither equipped nor qualified to produce the modules. Nevertheless, in July 2012, we worked with you amicably by allowing you additional time that was made necessary, at least in part, by SMS's poor performance. In exchange, you agreed that you would not be entitled to any additional time extensions due to future module delays.

## III. MODULE DELAYS CONTINUED AFTER THE 2012 AGREEMENT

Despite the Consortium's assurances, module production did not improve after the 2012 Agreement. The Consortium issued a module delivery and assembly baseline schedule, dated August 10, 2012, as called for in the 2012 Agreement. That schedule contained a series of milestone dates, including the following on-hook dates for CA-20 and CA-01:

-	<u>Activity</u>	Unit 2 Milestone Date
	CA-20 On-Hook	January 19, 2013
	CA-01 On-Hook	May 28, 2013

The Consortium has not met these on-hook dates or any other milestone dates in that schedule.

#### A. Module Status In September 2012

. ....

As of September 27, 2012, at least thirty of the milestone dates had already come and gone without completion of the associated milestone event. By that time, only 31 of the 72 sub-modules for CA-20 had been delivered to the site. As a result of the module production and delivery delays, we wrote to you on September 27, 2012. That letter stated:

Due to the current status of the structural modules, the Owner remains concerned that the late fabrication, delivery, and installation of structural modules will impact the Consortium's ability to meet the critical path schedule date of January 28, 2013¹ (CA20 on-hook date), and eventually to meet the revised Unit 2 Guaranteed Substantial Completion Date (GSCD) and possibly the Unit 3 GSCD. The Owner requests the

<sup>1</sup> This date was incorrect. The letter should have referenced a January 19, 2013 CA-20 on-hook date,

Consortium continue to provide structural module status updates during the weekly project review meetings and other status updates as previously agreed. Also, beginning no later than October 10, 2012, provide bi-weekly written status updates on the fabrication, delivery, and installation of the structural modules, including information on any structural module issues. Finally, the Owner requests the Consortium review with the Owner the Consortium's documented contingency plans concerning the structural modules prior to October 19, 2012. These contingency plans should include, at a minimum, actions to be taken by the Consortium to meet currently scheduled structural modules CA01-CA05 and CA20 on-hook dates and installation dates to support the Project schedule.

The Consortium did not comply with any of these requests.

As of September 2012, you had still not resolved your NRC issues. The NRC performed an unannounced inspection on September 10-14, 2012, which led to another "Notice of Nonconformance" arising out of deficiencies in SMS's quality assurance program. The NRC documented this in its letter of October 24, 2012, which stated:

During the inspection, the inspectors found that the implementation of your QA program did not to meet [sic] certain NRC requirements imposed on you by your customers or NRC licensees. Specifically, SMS failed to promptly correct conditions adverse to quality and significant questions adverse to quality, failed to effectively implement a corrective action regarding documentation of late entries in a quality records procedure, failed to preclude recurrence of significant conditions adverse to quality related to identification and control of items, and failed to perform adequate corrective actions associated with a nonconformance identified during a previous NRC inspection.

Shortly after this, the NRC advised CB&I of a "chilled work environment" at the Lake Charles facility, which was causing employees to believe that they "are not free to raise safety concerns using all available avenues" and that "individuals have been retaliated against for raising safety concerns."

#### B. Module Status In March 2013

By March 6, 2013, only 40 of the 72 sub-modules for CA-20 had been received. At our request, a meeting to discuss module production was held among executive officers in Columbia on April 9, 2013. Westinghouse did not attend the meeting, but CB&I was there and it promised that the Consortium would deliver four modules in the

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second quarter of 2013, 40 modules in the third quarter, and 39 modules in the fourth quarter. It also informed us of a significant delay in the on-hook dates, as follows:

<u>Activity</u>	Delayed Unit 2 Date
CA-20 On-Hook	October 31, 2013
CA-01 On-Hook	September 4, 2014

The Consortium missed the revised CA-20 on-hook date of October 31, 2013 and, as of today, has yet to reach this milestone. The Consortium is also not on schedule to meet the revised CA-01 on-hook date of September 4, 2014.

# C. <u>Module Status In May 2013</u>

By May 25, 2013, the Consortium had delivered only 41 of the 72 CA-20 sub-modules. And it had delivered only one of these in the preceding eleven weeks.

## D. The Consortium Reported Schedule Delays In June 2013

On June 5, 2013, SCE&G publicly disclosed your statement to us that you would not be able to meet the required completion dates in the 2012 Agreement. We reported your estimate that completion of unit 2 would occur in either the fourth quarter of 2017 or the first quarter of 2018 and your estimate that completion of unit 3 would be "similarly delayed." Due to these delays, we also reported that SCE&G's 55% cost of the project could increase by \$200 million. We noted that these schedule changes and cost increases resulted from "delays in the schedule for fabrication and delivery of submodules for the new units."

## E. Module Status In July 2013

We saw no improvement over the next several months. By July 18, 2013, the Consortium had delivered only 44 of the 72 CA-20 sub-modules. This means that it had delivered only three modules in the preceding 11 weeks.

On August 7, we sent you another letter expressing our concerns about delays. On September 17, you advised us that, unless we objected, you would move the work of completing some CA-20 sub-modules from Lake Charles to the site. Your proposal was to move the uncompleted sub-modules into a temporary, onsite quarantine area to complete document processing and make minor repairs. We responded that we would not interfere with your decisions about how best to perform the work.

# F. <u>The Consortium Reported Further Schedule Delays in September 2013</u>

On September 18, 2013, the executives of all involved companies met in Columbia. That meeting resulted in a September 25 letter from you, which included a schedule showing the following activities and dates:

Activity	Unit 2 Target Date	Unit 2 Late Date
CA-20 On-Hook	January 24, 2014	January 27, 2014
CA-01 On-Hook	July 18, 2014	September 18, 2014
Substantial Completion	December 15, 2017	December 15, 2017

Your letter also stated that:

The Unit 2 CA01 sub-module delivery schedule is being reviewed to incorporate the latest information and will be transmitted to you by October 2, 2013. We have scheduled a management meeting on October 3, 2013, to review these deliverables with your team.

The promised October 2 letter and schedule showed that all CA-20 sub-modules would be delivered by November 4, and CA-01 sub-module shipments would extend between November 3, 2013 and July 18, 2014. The letter and schedule also introduced, for the first time, a CA-20 "minimum configuration" concept that we believe has the potential to further impede your ability to achieve timely project completion. This concept conflicts with the 2012 Agreement, and associated August 10, 2012 baseline schedule, which call for a complete (equipment loaded) CA-20 module to be set on its foundation by January 19, 2013.

Your October 2, 2013 letter went on to state:

The Consortium is taking additional management measures to add certainty to this schedule. Resources have been added to engineering to reduce the backlog of E&DCRs and N&Ds and improve the turnaround time to disposition these items. Personnel from Lake Charles have been located at the V.C. Summer site to perform final inspections and document closeout. Resources have been added to the modules team to repair or rework any conditions identified on the sub-modules and prepare them for assembly. A daily Lake Charles Plan of the Day process has been implemented to drive schedule, elevate issues and resolve problems. Weekly CBI senior management review and monitoring of Lake Charles progress against the plan has been established. Milestone Managers are

> being added to the site team to drive schedule and accountability for module assembly and placement. We believe that actions such as these will improve performance.

> Although this lefter does not amend the EPC Agreement or modify our commercial positions, we commit our support to the Project in achieving the schedules provided herein. We will maintain frequent and transparent communications with your staff to ensure that any significant change in schedule is raised and understood. We encourage SCANA to monitor our schedules and provide immediate feedback if they are not meeting your expectations.

Of the CA-20 sub-modules remaining to be delivered as of this date, seven were earmarked for delivery to the onsite quarantine area for completion of document processing and minor repairs. Those sub-modules were not ready to be incorporated into the construction.

Weekly module update calls began on October 14. By December, however, the level of participation by Consortium management had begun to wane, "Frequent and transparent" communications did not materialize, and we have not received "immediate feedback" when we have raised schedule issues.

In our letter of October 21, 2013, we stated:

You have represented that this schedule embedies the Consortium's realistic expectations concerning performance of Unit 2 work and its commitment to achieve Unit 2 substantial completion date by December 15, 2017.

We appreciate the Consortium's efforts in preparing these schedules and the Consortium's commitment to allocate additional resources and to perform as to achieve Unit 2 substantial completion by December 15, 2017. We must remind you, however, that the Consortium remains contractually committed to the dates for substantial completion stated in the July 11, 2012 Letter Agreement. As you correctly noted, the schedules in no way amend the Agreement. In the Letter Agreement, the parties agreed to a Unit 2 Guaranteed Substantial Completion Date of March 15, 2017, and a Unit 3 Guaranteed Substantial Completion Date of May 15, 2018.

G. <u>Design Deficiencies Came To Light During September 2013 On-Site</u>
Assembly

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On September 3, 2013, Westinghouse informed us that it had identified problems with the design of CA-04. The Consortium had planned to set that module on the Nuclear Island in September 2013, but it delayed that work because of the need to modify the concrete foundation. The foundation placement was then put on hold during the foundation redesign and associated procurement.

## H. Module Status In December 2013

By December 4, 2013, all 72 CA-20 sub-modules had finally been delivered to the site, although 30 of them required documentation processing and repairs at the on-site quarantine area. The modification effort continued well into 2014.

On January 8, 2014, Westinghouse informed us that six Engineering and Design Coordination Reports (E&DCR) had to be completed before placement of CA-20. It also advised us that another sixteen E&DCRs would need to be completed after placement of CA-20, but before placement of wall concrete.

As of February 2014, none of the 47 CA-01 sub-modules had been delivered, although 20 should have been delivered by then, according to the October 2, 2013 schedule.

## I. Module Status in March 2014

The Consortium has been providing our construction team with daily email updates relating to CA-20, but the updates continue to illustrate performance shortcomings. The March 11, 2014 email update reflected an on-hook date of March 31. The email updates of March 12 and 13 reflected the same date, but stated that such date was "in jeopardy" and pending management review. The March 14, 15, 17 and 18 email updates all reflected a date of April 7 for this activity. Those from March 20, 21, 22, 23, 25, 26 and 27 all stated that the April 7 date was "under review." Beginning on March 28, the email updates stated that the on-hook date had slipped again to May 10. In short, the projected on-hook date for CA-20 continues to slip and, by the end of March, we were farther away from completion of that activity than the Consortium had stated we were at the beginning of March.

The Consortium's progress with CA-01 has also been poor. Westinghouse has informed us that it is reviewing its design for that module and future changes could delay its placement. Due to these design issues, documentation approving placement of CA-01 is not expected until August 31, 2014.

# IV. DESIGN ISSUES HAVE CONTRIBUTED TO THE PROJECT DELAY

### A. IFC Design Delays

Other design issues, in addition to those identified above, have also delayed the project and are expected to contribute to future delays. Foremost among these is the delayed completion of Issued For Construction (IFC) drawings. The IFC percentage complete is the Consortium's primary metric for evaluating the status of design. That information shows that the Consortium has failed to meet expectations for design finalization and has misjudged its own performance.

The Consortium's early reports of design progress were optimistic. For example, in the March 17, 2011 Monthly Project Review minutes, the Consortium reported that it had delivered 90.49% of the scheduled IFC documents. As a result, the Consortium stated, "Design finalization is coming to an end and transitioning to support the Certified for Construction (CFC) design."

The May 19, 2011 Monthly Project Review minutes continued to reflect satisfactory progress. They reported Westinghouse's statement that design finalization was considered to be complete by the Department of Energy (DOE) and according to WEC's definition. The minutes also reported Westinghouse's estimate that the design was 95% complete. In addition, they reported Westinghouse's statement that the remaining engineering had been defined in a resource-loaded schedule, which it would use to monitor progress to completion.

The October 20, 2011 Monthly Project Review minutes reported Westinghouse's statement that site-specific engineering was winding down and that design finalization should be complete in the summer of 2012.

The Consortium began reporting design delays in May 2012, when you advised us that you would not meet the October 11, 2012 schedule for many of the IFC packages. On December 31, 2013, the Consortium reported to us that the IFC design documents were now only 94% complete. The Consortium continued this trend of revising design progress downward. On March 31, 2014, Westinghouse reported that the IFC documents were only 88% complete.

## B. Design Issues Impact Nuclear Island Civil/Structural Work

Westinghouse's many design changes have also adversely impacted the Nuclear Island (NI) civil/structural work. One example concerns the A2 I wall in the Auxiliary

Building, which is a fairly simple reinforced concrete wall. Two of the construction packages are VS2-1210-COW-003 (rebar/embeds for I wall areas 4 and 5) and VS2-1210-CCW-001 (concrete for I wall areas 4 and 5). There were 109 unique E&DCRs between the two work packages. Ninety-two (92) of the E&DCRs were WEC initiated. This wall placement was delayed several weeks due to the design clarifications and changes.

## C. <u>Design Issues Are Requiring Multiple License Amendment Requests</u>

The lack of WEC design maturity is evident in the high numbers of License Amendment Requests (LARs) and Departures to the Final Safety Analysis Report (FSAR) being submitted. As noted in the April 17, 2014 project status review meeting, 90 LARs have been identified; the NRC has approved 11 LARs; and 15 LARs are under NRC review. The following are three examples of these LARs and their importance:

- LAR 13-01/WEC LAR 54 (base mat shear reinforcement design spacing requirements) adversely impacted the schedule for Unit 2 nuclear island base mat concrete placement.
- LAR 13-02/WEC LAR 55 (base mat shear reinforcement design details revising the licensing basis from ACI 349 to ACI 318) also adversely impacted the schedule for Unit 2 nuclear island base mat concrete placement.
- LAR 14-01/WEC LAR 60 (Auxiliary Building structural details)
  has adversely impacted the schedules for construction of
  Auxiliary Building walls and floors and construction of structural
  module CA 20.

Furthermore, we anticipate that LAR 13-33/WEC LAR 53 (condensate return in the Containment Building) will impact construction progress. The same is true of LAR 14-07/WEC LAR 78 (CA04 tolerances); LAR 14-05/WEC LAR 72 – CA05; LAR 13-13/WEC LAR 02a (Turbine Building structural layout, which has been approved for Plant Vogtle); and LAR 13-14/WEC LAR 08 (Battery Room changes). We also anticipate that an LAR will be needed for coating thermal conductivity methods, which will impact Containment Vessel ring 1.

In addition to the LARs, the Consortium has also had a large number of Departures. The April 17, 2014 project status report states that 595 Departures have

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been identified. Of these 237 are in process and 358 are in the queue. These Departures do not require NRC review but have the potential for impacting the project schedule due to Westinghouse's design changes.

## V. OUR FRUSTRATION CONTINUES TO MOUNT

As a result of these events, our frustration continues to mount. You have made promise after promise, but fulfilled few of them.

We are aware that the Consortium is in the process of preparing yet another rebaseline of the project schedule. We are entitled to a re-baseline schedule that reflects all mitigation measures reasonably possible to ensure completion of Units 2 and 3 on or near the currently projected completion dates. Please note that this statement of our rights is not an acceleration order. The currently projected completion dates are already past the dates to which the parties agreed in the 2012 Agreement. The delays since then have been solely the Consortium's fault. Thus, you are contractually obligated to take the steps necessary to mitigate the delays at your own expense.

Your unexcused delays will cause our project costs to increase greatly. We intend to hold you strictly to all provisions of the EPC Agreement and expect you to reimburse us for all our additional costs.

We have prepared a preliminary estimate of the added costs associated with your most recent completion projections, that is, completion of unit 2 in either the fourth quarter of 2017 or the first quarter of 2018 and a similar delay to completion of unit 3. Based on such delays, we estimate that we will incur about \$150 million in additional site costs, and will be entitled to about \$100 million in liquidated damages. If you fail to meet your most recent completion projections, these amounts will be even higher. We are in the process of investigating other additional costs that we are incurring due to the unexcused delays or associated changes to your work plan. We will advise you of their categories and amounts once we have completed our investigation.

Any future delays to those projections will require further adjustments to the payment schedules.

## VI. CONCLUSION

It is imperative that the Consortium demonstrate a renewed commitment to this project. To help achieve that, we wish to discuss these performance deficiencies and associated delays with you, as well as the measures that you intend to take to mitigate the delays. We also wish to explore with you the extent to which the Consortium's unexcused project delays constitute breaches of material provisions of the EPC Agreement.

Respectfully,

Lonnie N. Carter

President & CEO Santee Cooper

Kevin B. Marsh

President & CEO SCANA





#### For Immediate Release

SCANA Media Contact: Rhonda O'Banion 800-562-9308 rhonda.obanion@scana.com SCANA Investor Contact: Christina Putnam 803-217-7512 cputnam@scana.com

# SCE&G Completes Nuclear Island Basemat Placement for V.C. Summer Unit 3

CAYCE, S.C., Nov. 4, 2013—South Carolina Electric & Gas Company (SCE&G), principal subsidiary of SCANA Corporation (NYSE:SCG), completed on Nov. 4, 2013 placement of the nuclear island basemat for V.C. Summer Unit 3 in Fairfield County, S.C. This major milestone comes just seven months after SCE&G poured the first new construction nuclear concrete in the U.S. in three decades for its Unit 2 nuclear island.

"We are again proud to have accomplished such a significant milestone as our new nuclear construction project progresses," said Kevin Marsh, chairman and CEO of SCANA. "This is another example of our outstanding collaboration with Santee Cooper, CB&I, Westinghouse Electric Company and the many other stakeholders who play a role in providing South Carolina with the best solution for meeting the long-term need for clean, safe, and reliable power."

"This successful basemat placement is a testament to the hard work by all involved," said Lonnie Carter, president and CEO of Santee Cooper. "We have come a long way since getting our combined construction and operating licenses in March 2012, and this milestone gets us one step closer to the finish line and the many benefits these units will provide for our state."

The basemat provides a foundation for the containment and auxiliary buildings that are within the nuclear island. Measuring 6 feet in thickness, the basemat required approximately 7,000 cubic yards of concrete to cover an area about 250 feet long and 160 feet at its widest section. This approximately 43-hour continuous pour of concrete covered a surface totaling 32,000 square feet.

About 2,000 workers are currently involved in constructing two new reactors at V.C. Summer, where Unit 1 has operated safely and reliably for 30 years. The new nuclear project will peak at about 3,000 workers over the course of three to four years. The two 1,117-megawatt units will add 600 to 800 permanent jobs. Once the two units are complete—Unit 2 currently scheduled to be in late 2017 or early 2018, followed by Unit 3—SCE&G anticipates its generation mix will be about 30 percent nuclear, 30 percent natural gas, and 30 percent scrubbed coal, with the balance in hydro, solar and biomass.

SCANA and SCE&G post information from time to time regarding developments relating to SCE&G's new nuclear project on SCANA's website at <a href="https://www.scana.com">www.scana.com</a>. On SCANA's homepage, there is a yellow box containing a link to the New Nuclear Development section of the website. That section in turn contains a yellow box with a link to project news and updates. Some of the information that is posted from time to time may be deemed to be material information that has not otherwise become public, and investors, media and others interested in SCE&G's new nuclear project are encouraged to review this information.

#### **PROFILE**

South Carolina Electric & Gas Company is a regulated public utility engaged in the generation, transmission, distribution and sale of electricity to approximately 675,000 customers in 24 counties in the central, southern

and southwestern portions of South Carolina. The company also provides natural gas service to approximately 325,000 customers in 38 counties in the state. More information about SCE&G is available at <a href="https://www.sceg.com">www.sceg.com</a>.

SCANA Corporation, headquartered in Cayce, SC, is an energy-based holding company principally engaged, through subsidiaries, in electric and natural gas utility operations and other energy-related businesses. Information about SCANA is available on the Company's website at <a href="https://www.scana.com">www.scana.com</a>.

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# Crosby, Michael

From:

Crosby, Michael

Sent:

Wednesday, October 14, 2015 1:12 PM

To:

Carter, Lonnie

cwrau@bechtel.com

Cc: Subject:

\*\*\* Confidential \*\*\* Bechtel Assessment (Preliminary - Bullet Notes)

Lonnie,

Carl has provided (you/me) preliminary bullet notes from the Assessment (see below) ... SCE&G has not seen this yet.

I do not see any real surprises ... the Bechtel projection on commercial operation dates is sobering.

\*\*\*

Once a CEO meeting is scheduled ... Carl will work to schedule a sit-down meeting with Byrne & me ... and also a separate meeting with Jeff Archie's staff ... but he needs to get you and Kevin nailed down first.

Per Carl ... the CEO meeting is looking like the 22<sup>nd</sup> or 23<sup>rd</sup> ... Marty told me your schedule was better on the 23<sup>rd</sup>.

Thanks, Michael

From: Rau, Carl [mailto:cwrau@Bechtel.com] Sent: Tuesday, October 13, 2015 3:55 PM

To: Crosby, Michael

Subject: [EXTERNAL SENDER] Bechtel Assessment

Michael,

The attached is hot off the press, Preliminary Assessment, which will form the basis of our presentation to the execs. I did not include recommendations as they are still in development but will be part of the exec review.

Call with questions,

Carl

#### Scope of the Assessment

- Evaluate the status of the project to assess the Consortium's ability to complete the project on the forecasted schedule.
- Focus was not on cost.
- Team comprised of 10 senior managers from the following functional areas Project Management, Construction, Project Controls, Engineering & Licensing, Procurement, and Startup.

## **Preliminary Findings**

**Project Management** 

- The project management approach used by the Consortium does not provide appropriate visibility and accuracy on project progress and performance.
- There is a lack of accountability in various departments in both the Owner's and Consortium's organizations.
- The Consortium's lack of project management integration (e.g., resolution of constructability issues) is a significant reason for the current construction installation issues and project schedule delays.
- The current hands-off approach taken by the Owners towards management of the Consortium does not allow for real-time, appropriate cost and schedule mitigation.
- The WEC-CB&I relationship is extremely poor caused to a large extent by commercial issues.
- The overall morale on the project is low.

## **Project Controls**

- Our preliminary assessment of the project schedule is that the commercial operation dates will be extended:
  - Unit 2: 18-26 months beyond the current June 2019 commercial operation date.
  - Unit 3: 24-32 months beyond the current June 2020 commercial operation date.

The probability range is approximately 50%-75%.

- The Consortium's forecasts for schedule durations, productivity, forecasted manpower peaks, and percent complete are unrealistic.
- The Owners do not have an appropriate project controls team to assess/validate Consortium reported progress and performance.

#### Construction

- Construction productivity is poor: Unit 2 is 2.3, Unit 3 is 1.6.
- Manual and non-manual sustained overtime is negatively affecting productivity.
- CB&l's work planning procedures are overly complex and inefficient, directly affecting craft productivity.
- Aging of the construction workforce is impacting productivity.
- The indirect to direct ratio is very high at 157% (typical mega nuclear project is 35-40%).
- Field non-manual turnover is high at 17.4% per annum.
- The current construction percent complete per month is only 0.5% versus plan of 1.3%.
- The workable backlog is significantly more than the current craft workforce.
- The project safety, housekeeping, and quality records are very good.

#### **Engineering and Licensing**

- Based on the team's observation of current civil work, the issued design is often not constructible (currently
  averaging over 600 changes per month). The complexity of the engineering design has resulted in a significant
  number of changes to make the design constructible.
- The construction planning and constructability review efforts are not far enough out in front of the construction effort to minimize impacts.

- Resolution of many Engineering and Design Coordination Reports (E&DCRs) is behind schedule. The E&DCR backlog is not decreasing.
- Engineering staffing remains extremely high for this stage of the project (around 800 total engineers for WEC and CB&I); however, the staffing is needed to complete the design and provide support to construction.
- There is significant engineering and licensing workload remaining for electrical design, I&C, post construction design completion, ITAAC closure, etc. Much of this remaining engineering will potentially impact construction.
- 119 license amendment requests (LARs) and 657 departures have been identified to date. This is a significant
  project workload that is well planned and scheduled and interactions with the NRC are good. Emergent issues
  potentially requiring NRC approval of LARs remain a significant project concern.

#### Procurement

- There is a significant disconnect between Construction need dates and procurement delivery dates. There are:
  - 457 open WEC and 2,907 open CB&I equipment deliveries.
  - 31 WEC and 28 CB&I POs to be placed.
- The amount of stored material onsite is significant creating the need for an extended storage and maintenance program. Inventory validation in the yard is only at 48% accuracy.
- The current min-max warehousing program is insufficient for the scale of the construction effort which is impacting productivity.

#### Startup

- The startup test program schedule is in the early stages of development.
- The current boundary identification package turnover rate appears to be overly aggressive and not consistent with the current construction completion schedule.

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